

Remarks

Claims 1-20, 31, and 32 are pending in the present application and are rejected.

Claims 1, 31, and 32 are amended to include the limitation "wherein the first zone is positioned upstream of the second zone." Claims 31 and 32 are further amended to include the limitation "the first zone and the second zone are contained within a single catalyst structure." The antecedent basis for these amendments are found in Figure 3 of the disclosure. No new matter is added by these amendments.

1. Continued Examination Under 37 U.S.C. 1.114

Applicants respectfully assert that the Examiner has inappropriately made the first Office Action final after the request for continued examination. The Examiner has not completely analyzed Applicants' arguments regarding zones versus layers.

2. Claim Rejections Under 35 U.S.C. 102

Claims 1-20 and 31-32 are rejected under 35 USC 102 (b) as being anticipated by Sung et al.

The Examiner has completely disregarded the Applicants' analysis presented in the response filed September 20, 2005. Applicants have clearly shown that there is a difference between a zoned structure as claimed in the present invention and a layered structure as used in Sung et al. In support of the present rejection, the Examiner states:

Therefore, the instant specification does not define a zoned system as excluding layered systems and there is nothing in the language of the claims or the specification which would preclude each of the layers of the Sung catalyst from meeting the claimed zones.

Office Action dated November 28, 2005.

The Examiner's analysis is flawed for several reasons. Applicants maintain that review of Sung et al. clearly discloses the meaning of layers", while review of the present application clearly discloses the meaning of zones. Figure 3 of the present application illustrates a zoned structure in which one zone is upstream of the other zone. Figure 3 of Sung et al. illustrates what is meant by layered in the context of the invention disclosed in that reference. Moreover, the Specification of the present invention leaves no doubt that a zoned construction is different from a layered construction:

The forward catalyst 12 consists of two zones 18, 20. It should be noted that this invention also contemplates the use of layers in place of zones.

Specification, paragraph 31.

Clearly, this language illustrates that a zoned construction is not a layered construction. Although Applicants state that layers may be substituted for zones, Applicants have not claimed layers which is a different invention. It should be appreciated that one fundamental difference between a layered structure and a zoned structure is that gases must diffuse through upper layers in order to reach lower layers. In a zoned construction, in which a first layer is positioned upstream of a second layer, exhaust gases necessarily passed over each zone without having to rely on diffusion to reach the second zone.

Although the Applicants believe that the distinctions between Sung et al. and the present application are completely clear in independent claims 1, 31 and 32. These claims are amended to make the differences even more vivid. Therefore, amended claim 1 now includes the limitation "wherein the first zone is positioned upstream of the second zone." This added limitation is not found anywhere in Sung et al. Moreover, layered structures of Sung et al. are incompatible with an upstream – downstream zone construction as disclosed in the present invention. It is the Applicants position that this is the construction evident before the present

amendment. This amendment is merely presented to clarify the differences and to expedite prosecution.

Since Sung et al. cannot and does not disclose a first zone of the stream of a second zone as required by amended claim 1, independent claim 1 cannot be rejected under 35 U.S.C. 102 (b) since anticipation requires "each and every element of the claimed invention be disclosed in the prior art. *Akzo N.V. v. United States Int'l Trade Comm'n*, 1 USPQ 2d 1241, 1245 (Fed. Cir. 1986). Accordingly, claims 1-20, 31, and 32 are allowable under 35 USC 102 (b) over Sung et al.

Claim 31 is rejected under 35 USC 102 (b) as being anticipated by EP 1108863.

Claim 31 is amended to recite that the first zone and the second zone are contained within a single catalyst structure. EP 1108863 does not contain an analogous limitation. In support of the present rejection, the Examiner states regarding this reference:

It is taught that the NO_x reduction in catalyst was disposed downstream of the closed TWC (page 7, lines 55-59). With respect to the language of the claims, the closed coupled TWC is considered to meet the claimed first zone and the NO_x reducing catalyst is considered to meet the claim second zone.

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It is apparent from the Examiner's statements that in sustaining the rejection, two distinct catalysts are being combined together to provide the functionality of independent claim 31. Applicants have amended claim 31 to clarify that the first and second zones must be contained within a single catalyst structure. Accordingly, amended claim 31 is allowable under 35 U.S.C 102 (b) over EP 1108863.

Claim 31 is also rejected under 35 USC 103(a) as being anticipated by U.S. Patent No. 6,375,910.

Claim 31 is patentable under 35 USC 102 (b) for precisely the same reasons stated above for EP 1108863. Specifically, the Examiner again has combined two distinct catalysts together to create the two zone single catalyst structure of the present invention. As amended, claim 31 now specifically precludes such an artificial construction. Accordingly, amended claim 31 is allowable under 35 USC 102 (b) over U.S. Patent No. 6,375,910.

Claims 1-20, 31, and 32 are rejected under 35 USC 103 (a) as being unpatentable over Sung et al.

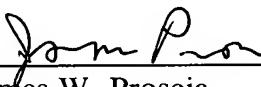
The allowability of claims 1-20, 31, and 32 over the Sung et al. reference has been discussed above. The Examiner only rejects these claims under 35 USC 103(a) “[ö]f it is considered that the disclosure of Sung et al. is not sufficiently specific to constitute anticipation...”. Moreover, the Examiner only adds to his previous statements for rejection discussion regarding “the exact amounts of the compounds required by the instant claims.” Claims 1-20, 31, and 32 have been shown as amended to be patentable over Sung et al. because of the deficiency of that reference to teach a catalyst having the requisite properties of independent claims 1, 31 and 32 in which a first zone is positioned upstream of the second zone. Therefore, the Examiner’s discussion regarding the amounts of the components is irrelevant with respect to patentability. Accordingly, claims 1-20, 31 and 32 are allowable under 35 USC 103(a) over Sung et al.

Conclusion

Applicants have made a genuine effort to respond to each of the Examiner’s rejections in advancing the prosecution of this case. Applicants believe that all formal and substantive requirements for patentability have been met and that this case is in condition for allowance, which action is respectfully requested. If a telephone or video conference would help expedite allowance or resolve any additional questions, such a conference is invited at the Examiner’s convenience.

The Examiner is authorized to charge any additional fees or credits as a result of the filing of this paper to Ford Global Technologies, Inc. Deposit Account No. 06-1510 as authorized by the original transmittal letter in this case. If a telephone or video conference would help expedite allowance or resolve any additional questions, such a conference is invited at the Examiner's convenience.

Respectfully submitted,
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